

DETAILED ACTION

1. This office action is in response to application 10/563,741 filed January 9th 2006.
Claims 96-113 are currently pending and have been examined.

Response to Arguments

2. Applicant's argument with respect to claim 96 has been considered but is moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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4. Claims 96-104, 106, 107, 109-113 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Fleming (6,107,990) and Herng-Chuen (5,914,703).

Apropos claim 96, Lee teaches:

A digital computer having at least one display for displaying information, exhibiting, comprising:

a) a housing having at least one front surface, facing a user viewing the display, side edge faces and a rear surface opposite to the front surface (See Fig. 3),

b) an input device having input means on at least one of the rear surface and one of the side edge faces for at least one of inputting and manipulating information (Input device 300, Fig. 3), , and is electrically connected to the digital computer via at least one interface (See integration of input device in Fig. 4),

wherein the input module is set up in at least one further function for at least one of performing inputs by means of at least one finger of a hand via the front surface of the mobile digital computer (buttons 330 and touchscreen 340 on input 300, Fig. 5), and for decoupling the input module mechanically from the digital computer in order to use it as an external input device (Col 6 lines 5-10).

However Lee fails to explicitly teach:

the input device being integrated in the housing in the form of an input module which is movable from a position accessible at the front face of the computer with respect to the housing to a position engaged in the housing that enables the inputting of

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information at at least one of the rear and side edge faces of the digital computer housing instead of at the front face of the computer housing.

In the same field of input modules selectively coupled and decoupled from a portable computer, Flemming teaches an input module which can be inserted in multiple positions (See Fig. 3).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include a way in which to change the orientation of the inserted input module in order to create a change in the interface that is more comfortable to the user depending on the task.

Further Herng-Chuen teaches an input module able to be selective coupled and decoupled from a computer housing, on which there are input means on multiple sides of the input module (see cursor controllers 70 and 72 Fig. 3 as well as 32 in Fig. 1).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide multiple input means on the various sides of the input module as taught by Herng-Chuen in order to provided alternate means for the user to input information efficiently in the combination device of Fleming and Lee which would result in an input module that has different input means being accessible via the different rotations in which the input module was inserted.

Apropos claim 97, Lee teaches:

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The digital computer as claimed in claim 96, wherein the input module is usable as an external mouse device when it is mechanically decoupled from the digital computer (Col 6 lines 5-10).

Apropos claim 98, Lee teaches:

The digital computer as claimed in claim 96, wherein the input module is constructed as at least one of

- a special module having a joystick,
- a chip card receiving module,
- an adapter card module for network connections and other system expansion modules,
- a module for receiving and/or transmitting satellite signals,
- a telecommunication module,
- a position finding module (GPS, Galileo),
- a mobile radio telephone,
- a PDA,
- a remote control (Col 8 lines 5-15, when not attached to the housing, can function as a wireless mouse which can remotely control operations on the display),
- a USB or FireWire interface module,
- a display module with pin and/or key input,
- a media player, an
- a laser pointer.

Apropos claim 99, Lee teaches:

The digital computer as claimed in claim 96, wherein the at least one of inputting and manipulating of information by means of the input module comprises means for performing at least one of the functions from the following group of functions :

- inputting of relative location data for controlling a cursor on the display of the digital computer by a corresponding movement of a hand or of at least one finger of a hand of a user (Col 6 lines 5-10),

- inserting of menus and selection information,
- paging,
- scrolling
- switching into another operating mode,
- setting up at least one of device and software characteristics,
- providing information on the display,
- selecting information on the display (COI 6 lines 5-10),
- at least one of selecting and marking information displayed on the display,
- moving information displayed on the display,
- confirming marked information or information input,
- inputting PIN or password information,
- switching the digital computer on and off,
- switching the screen on and off,
- activating and deactivating of a pen input mode, and

- activating and deactivating of an energy saving mode.

Apropos claim 100, Lee teaches:

The digital computer as claimed in claim 96, wherein the input module, as operating element, has at least one of a slide pad, a key, a jog dial, a rollerball, a capacitive sensor, a pressure-sensitive screen, a multifunction key, a 4-WAY rocker key and other keys (Keys 330, touchscreen 340 and rollerball 350, Fig. 5).

Apropos claim 101, Lee teaches:

The digital computer as claimed in claim 96, wherein the digital computer has a coupling bay which receives the input module so that it can be reached from at least two sides (Coupling bay 210, Fig. 3 which receives module so as to be accessible from the front and top sides).

Apropos claim 102, Lee teaches:

The digital computer as claimed in claim 96, wherein at least one of the input module and the digital computer is configured by means of a relative movement of the input module which is movable with respect to the housing (Col 6 lines 60-Col 7 line 10).

Apropos claim 106, Lee teaches:

The digital computer as claimed in claim 96, wherein the input module has input means on at least two sides for operating thereof from at least two sides in the coupled

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state in the coupling bay (340, Fig. 5A on the top side, 350, Fig. 5C on the bottom side and connection 310 on the rear side,).

Apropos claim 107, Lee teaches:

The digital computer as 'claimed in claim 96, wherein the digital computer and the input module have a plurality of input means which are operatable in combination for inputting (Buttons 330 and roller 350, Fig. 5).

Apropos claim 109, Lee teaches:

The digital computer as claimed in claim 96, wherein the operating mode of at least one of the input means and of the display are settable in dependence on at least one of the configuration of the input device and the device attitude or position (Col 6 lines 60-Col 7 line 10).

Apropos claim 110, Lee teaches:

The digital computer as claimed in claim 96, wherein the input module has its own battery which, in the inserted state, is chargeable via the mobile digital computer (Col 6 line 48-59).

Apropos claim 111, Lee teaches:

The digital computer as claimed in claim 96, wherein means for establishing an effective coupling between the digital computer and the input module for data

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transmission by at least one of a radio signal, an infrared signal and in wire-connected manner is provided (Col 6 line 39-44).

Apropos claim 112, Lee teaches:

The digital computer as claimed in claim 96, wherein at least one interface of the input module provides both for power supply and data traffic (Battery recharged when connected to the system Col 6 lines 53-56).

Apropos claim 113, Lee teaches:

The digital computer as claimed in claim 96, wherein the input module has means for switching, when mechanically decoupled, to a wireless data connection and remains effective as external input module (Fig. 13, shows switching between Wired and Wireless communication).

Apropos claim 103, Lee fails to explicitly teach:

the input module is removable from the coupling bay and selectively insertable into the coupling bay in each of positions which rotated with respect to each other about a vertical or a horizontal axis.

In the same field of input modules selectively coupled and decoupled from a portable computer, Flemming teaches an input module which can be inserted in multiple positions (See Fig. 3).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include a way in which to change the orientation of the inserted input module in order to create a change in the interface that is more comfortable to the user depending on the task.

Apropos claim 104, Flemming further teaches:

The digital computer as claimed in claim 103, wherein at least one of the coupling bay and at the input module is provided with at least one further interface for use with the changed orientation (See different interfaces for orientations in Fig. 4).

5. Claim 105 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Heng-Chuen in view of Kawabe (6,166,722)

Apropos claim 105, Lee fails to explicitly teach:

wherein the input module is pivotable about a pivot axis which is located parallel to the input surface for producing the relative movement for configuring.

In the same field of input devices attached to portable computers, Kawabe teaches being able to pivot the input device (See Fig. 4, Col 4 line 40-60).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to allow pivoting of the input device as taught by Kawabe in the input module of Lee in order to provide a means for the user to connect the input module to the housing.

Claim 108 rejected under 35 U.S.C. 103(a) as being unpatentable over Lee and Heng-Chuen in view of Landry (2003/0021086).

Apropos claim 108, Lee teaches:

a second coupling bay on the front surface, (210, Fig. 3) and is an operable as external mouse module in a mechanically decoupled state (Col 6 lines 5-10).

However Lee fails to explicitly teach:

wherein the digital computer has a rear coupling bay on its rear surface;

wherein the input module is removable and insertable into the rear coupling bay

In the same field of portable computers, Landry teaches that component bays of a portable computer can be both on the front of the housing or the rear, or any other side such as required by the particular application on the computer ([0021]).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide docking bays for Lee's invention on other parts of the portable computer in order to facilitate different applications the computer, of which a docking bay on the rear side of the computer is a matter of design choice.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RANDAL WILLIS whose telephone number is (571)270-1461. The examiner can normally be reached on Monday to Thursday, 8am to 5pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on 571-272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RLW

/Amr Awad/

Supervisory Patent Examiner, Art Unit 2629